9; Prothero G-4 (no date) 1920 RD1 Ukraine RD1

425 by the Government at various times between the middle of the eighteenth century and 1861, in the hope that their superior methods of agriculture would be copied by other cultivators. This effect, however, was not produced, and the colonists form compact communities with little or no influence on their neighbours. Land in private ownership is usually farmed on more modern [241] and rational principles than the *nadyel* land, and produces almost the entire surplus of cereals which is sent abroad and to other parts of Russia.

421 The land owned by the Church, Crown, and members of the Imperial family is absolute freehold, and is generally well managed and productively farmed.

• 407 412 Up-to-date agricultural machinery is becoming more common all round. It is of course most in vogue on the large estates, especially in the case of expensive machines involving the use of power; steam-ploughs on the cable system are much in use on the large sugar-beet estates, and tractor ploughs with single engines are becoming numerous. By the help and enterprise of the *zemstvos* the peasants are now beginning to use modern machines and implements. The traditional *sock* or wooden plough, the flail, and other such primitive tools are disappearing, although it is hard to induce the peasant to abandon his old methods.

(c) *Forestry*

137 [311] A large portion of the Ukraine is totally denuded of trees at the present time. The Governments of Podolia and Volhynia, and the northern parts of Kiev and Chernigov, are well wooded, the area covered by forest being about 15 per cent. of the whole. In the remaining provinces the forest area averages 3–4 per cent. of the total. The State controls certain areas north of Kiev on both banks of the Dnieper, and in Volhynia on the south side of the Pripet marshes, as well as smaller scattered tracts in Podolia. In the Government of Yekaterinoslav the State has lately done much

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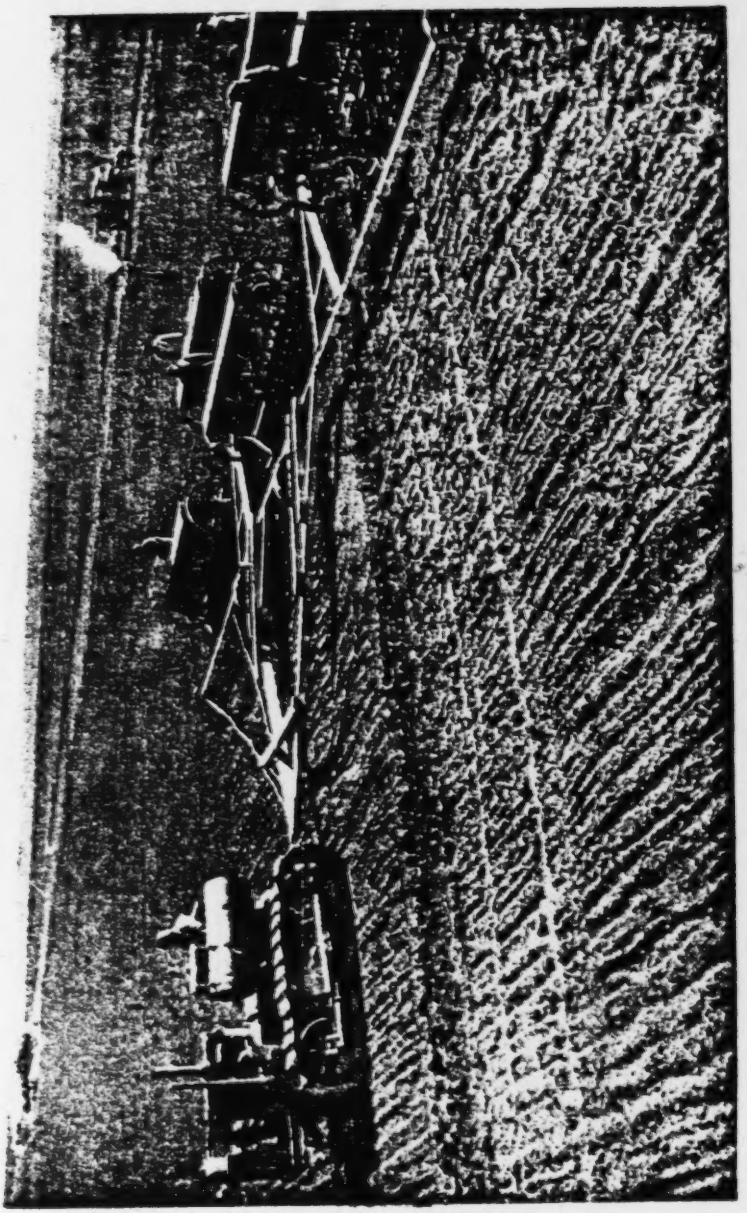

planting

311 241 [407] [475] Despite a certain reduction in the area under cultivation in the Ukraine, (25,124,900 hectares in 1937 as compared with 26,438,400 in 1932), production rose considerably, reflecting great progress in the mechanization of agriculture. The number of tractors increased from 51,300 in 1932 to 83,900 in 1937. The number of harvesting combines increased in the same period from 4,900 to 26,700. The number of Machine and Tractor Stations grew from 657 to 958. The mechanization of agriculture in the Ukrainian S.S.R. is shown in the following table, which compares the output of energy from draught animals with the energy derived from machines, both in the Ukrainian Republic and in the entire Soviet Union. (It should be noted that, according to Soviet practice, the output of energy is measured in kilowatt hours.)

TABLE V

Output of Energy in Agriculture, 1938
(million kwh)

	Ukrainian S.S.R.	Total Soviet Union
[407] Energy from machines	4,211	19,304.2
379 Energy from draught cattle	1,662	14,667.5
Total output of energy in agriculture	5,873	33,971.7

Source : Planned Economy XII, Moscow, 1940.

[178] As the table shows, the percentage of mechanization in the Ukraine was greater than in the entire Soviet Union.

Agricultural Development of the Incorporated Territories

311 425 723 According to the Concise Yearbook of Poland, London, 1941, there were in 1938 over four million hectares of arable land and 190,000 hectares of orchards and market gardens in Western Ukraine. The principal crops grown were wheat, rye, barley, oats, potatoes, and sugar beet.

Before 1939 farming in Western Ukraine was carried out on a very primitive level. After the incorporation of this region into the Ukrainian Republic, however, great changes were made. On October 28, 1939, the People's Assembly of Western Ukraine decreed the confiscation of large land estates, and subsequently, according to the Moscow periodical, Soviet State and Law (1941-III), over one million hectares were distributed among 400,000 landless farm workers and small holders. Similar changes occurred in the other incorporated territories. In the northern part of Bukovina, (in the Chernovitsy Province joined to the Ukraine) 200,000 hectares were distributed among landless workers, while in the Izmail (former Akkerman) Province, Bessarabia, 65,000 hectares were divided.

474 241 178 Apart from the confiscation of large estates and the re-distribution of the land, two further processes could be observed in these areas from the time of their incorporation until Germany attacked the U.S.S.R.: the organization of peasant holdings into collective farms, and the increased mechanization of agriculture. By September 1940 there were 400 collective farms in Western Ukraine; by January 1, 1941, the number had increased to 571, in which there were organized 34,000 peasant farm holdings. (These numbers do not include 535 "initiative" groups for the creation of collective farms with 14,000 peasant farm holdings.) In Northern Bukovina (according to the same source Soviet State and Law, 1941-III) the first seven collective farms with 3,000 hectares were also founded.

475 407 Mechanization also advanced rapidly. In the western part of the Ukraine 170 Machine and Tractor Stations were established in the first year of incorporation into the Republic. In 1941 in the Izmail Province, 27 Machine Tractor Stations were being built, and in the Chernovitsy Province, 13.

475 407 652 In the Transcarpathian region (incorporated into the Ukraine in June, 1945), nine Machine and Tractor Stations were established in 1946 to assist the work of the fields. The Five-Year Plan 1946-50 provides for special attention to the farms of Transcarpathian Ukraine in the form of machines, fertilizers and credits to increase agricultural production in this region, the pre-war output of which was as follows.

TABLE XI

Ukraine: War Losses of Farm Machinery

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	Number before the war	Destroyed or wrecked by the Germans
Tractors	over 90,000[1]	56,000[2]
Harvester combines	" 31,000[1]	24,000[2]
Trucks and cars used in agriculture	" 50,000[1]	30,200[3]
Other farm machines	n.a.	1,892,000[3]

1 Source: Mr. Baranovsky, Member of the UNRRA Council for the Ukrainian S.S.R. Speech at the Fourth Session of the UNRRA Council on March 20, 1946, Atlantic City, UNRRA Journal, Volume IV, No.6.

2 Source: Statement of the Soviet Commission on Material Damage Caused by the German-Fascist Invaders, Soviet News, September 18, 1945.

3 Source: Letter to the UNRRA Mission to the Ukraine from Mr. V.V. Khoryak, Chief, Ukrainian Department of UNRRA Supplies, April 6, 1946.

In addition to the spoilage of buildings, machinery and land, the Germans seized, slaughtered, or drove away millions of farm animals, and stole from the collective farms or from private citizens of the Ukraine over 12 million tons of farm produce, including 9.5 million tons of grain and flour[1].

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In the period immediately after liberation agriculture was slowly restarted, almost entirely by hand and in the most adverse conditions. Transport was highly disorganized and at the same time had to carry military traffic. On the heels of the victorious Soviet army the evacuated collective farmers were returning with their few animals to their wrecked farms. The flocks and herds were decimated or non-existent. Everywhere there were tremendous shortages of seeds, fertilizers, implements, machinery and manpower to do the work. In most districts in 1945 only 50 to 60 per cent. of the pre-war area could be sown. Many of the crops were sown late because of difficulty in cultivating the land; and when harvesting time came, much of the reaping and threshing had to be done by hand. Average yields of all crops were very low.

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1 Department of UNRRA Supplies of the Ukrainian Government, Kiev, April 6, 1946.

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TABLE XV

Livestock in Pre-War Ukraine and in the U.S.S.R.

	Ukrainian S.S.R.	
	1932	1937
Cows	2,436,500	3,458,900
Other large cattle	1,591,700	4,300,500
Pigs	2,667,700	7,729,700
Sheep and goats	1,528,700	3,301,500
Horses	2,430,200	2,937,200

	Soviet Union	
	1934	1938
Large cattle	35,500,000	50,900,000
Pigs	11,500,000	25,700,000
Sheep and goats	36,500,000	66,600,000
Horses	15,400,000	16,200,000

Source: Soviet Construction, Moscow, 1939

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It will be noted that in both the Ukraine and in the U.S.S.R. as a whole, only a slight increase occurred in the number of horses. This again illuminates the greater use of machines in place of animal draught power.

Livestock in Western Ukraine

In 1939 the livestock of Western Ukraine alone was as follows.

TABLE XVI

Livestock in Western Ukraine, 1939

Cows	1,718,000
Other horned cattle	868,000
Pigs	1,466,000
Sheep and goats	772,000
Horses	1,043,000

Source: Concise Year-Book of Poland, Polish Ministry of Information, London, 1941

Heavy Industry Building in 1947.[1]

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727 Reconstruction and building will be on a wider scale in 1947, as heavy improvements are introduced. Mechanization is being extended in blast furnaces, open-hearths, and metal-rolling shops; and ore and coal stores are being equipped with modern cranes.

In the Donets Basin in 1947 the Stalino Metal Works are to put into operation another blast furnace, marten oven and rolling mill.[2] At the Azovstal works the two blast furnaces of 1,000 cubic metres each will be enlarged to 1,300 cubic metres. Also at the Azovstal works, which in the past did not produce any rolled metal, are being built a blooming mill, which will be the largest in the south, and a rolling mill. New blooming mills and rail rolling mills are also to start at the Petrovsky works in Dniepropetrovsk, and at the Dzerzhinsky works in Dnieprodzerzhinsk. New pipe-rolling workshops will be added at the Nikopol Yuzhno-Trubny and the Dniepropetrovsk works.

At the Zaporozhstal works in 1947 several workshops will be added; and a power station and a 1,300 cubic metre blast furnace will begin working in the first half of the year. Among the most urgent tasks at this plant is the reconstruction of machines producing sheet metal for automobile production.

Equipment for Iron and Steel Mills

According to the new Five-Year Plan, the Ukrainian output of equipment for iron and steel mills in 1950 has been fixed at 35,000 tons; the total production of the entire Soviet Union has been fixed at 102,900 tons (of which 66,700 are to be produced by the Russian Soviet Federative Socialist Republic).

Production of Tractors

727 Before the war there were about 90,000 tractors in operation on
● 407 Ukrainian farms. During the occupation, 56,000 of these were wrecked
423 or stolen by the Germans, who also completely destroyed the well-known tractor factory at Kharkov. Because of the particularly great need of tractors in the Ukraine, this factory was rebuilt with great vigour; and production resumed. By February 1947 the Kharkov Tractor Works had produced 3,000 tractors since the restoration of the plant.

The 1950 output of tractors in the Ukraine is expected to be 25,000; for the entire Soviet Union, production has been fixed at 112,000 tractors.

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1 See U.S.S.R. Deputy Minister for the Construction of Heavy Industry Enterprises, Radio Moscow, February 3, 1947, B.B.C. Digest of World Broadcasts No. 274, London, February 5, 1947.

2 Soviet Monitor, London, January 2, 1947.

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433 supplies had been shipped to the Ukraine; remaining "protocol" ship-
ments to the Ukraine are expected to amount to 923 tons and 784,617
648 dollars.

Included in these supplies are power stations, pumps, portable cranes, presses, electric locomotives, and electrical and telephone equipment.

Agricultural Supplies

731 The greater part of the tonnage in agricultural supplies consisted
241 of seeds; by January 31, 1947, 15,669 gross long tons had been shipped.
Most of these seeds had arrived in the spring of 1946; however, some
648 of the bags were inadequately labelled, and the contents not easily identifiable. Because of this difficulty the seeds had to be given costly and time-consuming laboratory tests, which delayed distribution. At the same time, 2,600 tons of seeds were reported by the Ukrainian Government to be either diseased or infested with weeds, and therefore unfit for sowing. Negotiations are still in process for the replacement of these defective seeds by suitable types.

[407] As at the end of 1946 the amount of farm machinery which had arrived was small. For example, the UNRRA programme calls for the delivery of 1,600 tractors to the Ukraine, but only 310 had been received by December 31, and these come too late for autumn ploughing. They are being distributed to state owned Machine Tractor Stations for use this spring.

UNRRA shipments have also included 6,692 tons of bagging, 2,090 tons of fishing equipment, and 244 tons of dairy equipment. These are shown in the following table, which summarizes agricultural rehabilitation shipments to the end of January.

TABLE XXIV

UNRRA Shipments to the Ukraine of Agricultural Supplies up to January 31, 1947

	Thousand U.S. dollars	Gross long tons
Bagging	1,672	6,692
Farm machinery	1,517	2,941
Fishing equipment	651	2,090
Food processing equipment	551	1,122
Repair material and hand tools		312
Seeds	9,861	15,669
Dairy and poultry equipment	151	244
Totals	14,403	29,070

Source : UNRRA Headquarters, Washington.